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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/577,727   | 05/02/2006  | Yoichi Miyagawa      | 285079US6X PCT      | 3225             |
| 22850  | 7590        | 05/04/2009           |                     |                  |
| OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.<br>1940 DUKE STREET<br>ALEXANDRIA, VA 22314 |             |                      |                     |                  |
| EXAMINER   |             |                      |                     |                  |
| NGUYEN, SIMON  |             |                      |                     |                  |
| ART UNIT   |             | PAPER NUMBER         |                     |                  |
| 2618   |             |                      |                     |                  |
| NOTIFICATION DATE  |             | DELIVERY MODE        |                     |                  |
| 05/04/2009   |             | ELECTRONIC           |                     |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

10/577,727

**Applicant(s)**

MIYAGAWA ET AL.

**Examiner**

SIMON D. NGUYEN

**Art Unit**

2618

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 May 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

## DETAILED ACTION

### *Drawings*

1. Figures 1-2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 7 are rejected under 35 U.S.C. 102(e) as being participated by Masui (US 6,809,952 B2).

Regarding claim 1, Masui discloses a semiconductor IC (a RFID transponder) having a non-contact IC card function and a wireless reader/writer function (abstract, figs.1, 9, 13), comprising: an antenna (24) for communication with the reader/writer (12); a demodulator (36) for demodulating a receiving signal transmitted from the reader/writer; a full-wave rectifier (26) and smoothing circuit (CL1, CL2) for rectifying and smoothing the received signal; a transmission means (generating by modulator 38) for transmitting a first transmission signal (RF1) to the reader/writer 12 through the antenna 24 and a second transmission means (also the modulator 38) for transmitting a second transmission signal (RF 2) to the non-contact IC card through the first antenna (column 5 line 59 to column 6 line 57, column 7 lines 10-16, column 10 lines 1-62, column 11 line 50 to column 12 line 8).

Regarding claim 7, this claim is rejected for the same reason as set forth in claim 1.

Regarding claim 2, Masui further discloses stabilizing the power obtained from the received signal (column 6 lines 25-35).

Regarding claim 3, Masui further discloses the first transmission means (data modulator 38) is connected behind the rectifier and smooth circuit by changing the load of a second antenna (22) of reader/writer electromagnetically coupled with the first antenna (fig.1, column 6 lines 53-57, column 9 line 42 to column 10 line 33).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masui (US 6,809,952) in view of Arisawa (US 7,016,432).

Regarding claim 4, Masui fails to teach the other end of the second transmission means is connected to an intermediate tap of the first antenna.

Arisawa discloses a contactless ID card system having a contactless IC card and a reader/writer (abstract, figs. 7), wherein the contactless IC card comprising modulating/demodulating units, wherein the modulating units transmits two transmission signals (SC and TX (R-C)), wherein an end of a second transmission means (signal TX (R-C) is connected to an end of first antenna 28 (via TR, R98) and the other end is connected to an intermediate tap (T3) of the first antenna (fig.20). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have Masui, modified by Arisawa in order to have one antenna as a function of two antennas.

Regarding claim 5, Masui further discloses the second transmission means transmitting the second signal that is created based on a transmission carrier having a frequency and data (fig. 8, column 9 line 64 to column 12 line 17). However, Masui fails to teach the transmitting signal is a differential signal.

Arisawa discloses a modulating unit for generating first and second transmission signals (see claim 4 above), wherein the second transmission signal is a differential signal (column 25 lines 6-32).

Regarding claim 6, Masui further discloses the demodulator (36) for demodulating first and second received signals (RF1/RF2 of figs. 1). However, Masui fails to teach the first and second modulated signals are differential signals.

Arisawa discloses a contactless ID card system having a contactless IC card and a reader/writer (abstract, figs. 7), wherein the contactless IC card comprising modulating/demodulating units, wherein the demodulating unit for demodulating first and second received signals as differential signals (figs. 31-34, column 24 line 50 to column 25 line 31). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have Masui, modified by Arisawa to demodulate a combined resultant signal which will improve the system performance over a plurality of different types of signals.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Simon Nguyen whose telephone number is (571) 272-7894. The examiner can normally be reached on Monday-Friday from 7:00 AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc M. Nguyen can be reached on (571) 272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

April 28, 2009

/SIMON D NGUYEN/

Primary Examiner, Art Unit 2618